

### **REMARKS**

The following remarks are in further response to the Examiner's Final Office Action mailed on July 12, 2006, Applicants' interview with Examiners Changhwa J. Cheu and Long Le on August 16, 2006, and Applicants' telephone conference with Examiner Changhwa J. Cheu on September 12, 2006. Claims 18, 20, 22, and 24-30 have been canceled. Claims 1, 12, 14, 17, 19, 21, and 23 have been amended. New claim 31 has been added. Claims 1-17, 19, 21, 23 and 31 are pending.

#### **I. Teleconference with Examiner**

Applicants initiated a telephone conference with Examiner Cheu to inquire about the status of the instant application. Examiner Cheu suggested that Applicants file a Request for Continued Examination (RCE) under 37 C.F.R. §1.114. To expedite the prosecution, Applicants hereby submit an RCE with the same claims as shown in Applicants' Amendment filed on September 11, 2006 under 37 C.F.R. §1.116.

#### **II. Interview with Examiner**

Applicants express appreciation to Examiners Cheu and Le for conducting an in-person interview with Applicants on August 16, 2006. During the interview Applicants discussed the issues raised by the Examiner in the Office Action mailed on July 12, 2006, details of which are described in the following sections.

#### **III. Claim Objection Under 35 U.S.C. §102**

Claims 1-30 stand rejected under 35 U.S.C. §102(b) as being anticipated by Kauvar et al. (US 5,384,263). Specifically, the Examiner states that Kuvar et al. teaches a method for screening for an analyte of interest using a set of antibodies that recognize a variety of epitopes of such analyte such as to generate a binding profile for the analyte, wherein an epitope can be up to 6 amino acids in length.

Claims 1-30 as amended specify a set of digital antibodies and methods of using the set of digital antibodies. The set of antibodies has comprises at least about 15 digital antibodies; each of the 15 digital antibodies has been characterized to bind specifically to a different epitope consisting of 3 or 4 consecutive amino acids; and each digital antibody recognizes a plurality of distinct and different proteins that comprise the same epitope to which the digital antibody binds. Examples of

such antibodies are described in the specification, for example, on page 27, in Table 2, pages 31-32 and in a table on pages 70-71.

As discussed during the interview, Kauvar et al. fails to teach or suggest such a set of antibodies. In contrast, Kauvar et al. discloses “a random set of antibodies which potentially are capable of binding any possible antigen” (Col. 9, lines 22-23) such as a panel of random antibodies from the complete B-cell repertoire of unimmunized mice (Examples 1 and 2, columns 25 and 26). In fact, such a random panel of antibodies “is believed to represent a collection of antibodies which *sacrifices specificity* and affinity for scope.” Column 11, lines 24-26, emphasis added. According to Kauvar et al., such “a panel of randomly generated, immortalized, antibody-producing cells” is used to react “with a mixture of representative mimotopes in competition with *the analyte*,” and “the cells producing those antibodies for which *the analyte* successfully competes” are picked (column 3, lines 30-37, emphasis added). “A subset of these initially produced antibodies [is selected to] . . . produce a characteristic enough pattern with regard to *a particular analyte* that it can serve as a test substrate as well.” Column 11, lines 33-35, emphasis added. “The antibody thus obtained may at this point, be sufficiently specific and strongly enough binding to provide *the desired reagent*.” Column 3, lines 43-45, emphasis added. Thus, the antibody panels in Kauvar et al. are either random, non-specific antibodies or antibodies directed to *a single, particular analyte*. Nowhere does this reference teach or suggest a set of antibodies comprising *at least 15* digital antibodies *each* which has been *characterized to bind specifically to a different epitope consisting of 3 or 4 consecutive amino acids*; and each digital antibody recognizes a plurality of distinct and different proteins that comprise the same epitope to which the digital antibody binds. Therefore, Kauvar et al. fails to anticipate the claimed invention under 35 U.S.C. §102(b). Withdrawal of these grounds of rejection is respectfully requested.

**CONCLUSION**

In light of the amendments and remarks set forth above, Applicants earnestly believe that the pending claims are in condition for allowance, and respectfully solicit the Examiner to expedite prosecution of this patent application to issuance. Should the Examiner have any questions, the Examiner is encouraged to telephone the undersigned.

The Commissioner is authorized to charge any additional fees that may be required, including petition fees and extension of time fees, or credit any overpayment to Deposit Account No. 23-2415 (Attorney Docket No. 31615-701.201).

Respectfully submitted,

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By:



Shirley Chen, Ph.D., Esq.  
Registration No. 44,608

WILSON SONSINI GOODRICH & ROSATI  
650 Page Mill Road  
Palo Alto, CA 94304-1050  
Direct Dial: (650) 565-3856  
Fax: (650) 493-6811  
**Customer No. 21971**